SEABOARD GROUP II AND CITY OF HIGH POINT

August 11, 2015

Mr. Larry Stanley
North Carolina Department of Environment and Natural Resources
Division of Waste Management
1646 Mail Service Center
Raleigh, North Carolina 27699-1646

Re: Quarterly Remedial Action Construction Progress Report, 2nd Quarter 2015, Seaboard Chemical Corp. and Riverdale Drive Landfill Site, Jamestown, North Carolina

Dear Mr. Stanley:

Seaboard Group II and the City of High Point, NC (hereinafter the "Parties") provides this Remedial Action Construction Progress Report for the former Seaboard Chemical Corporation facility (SCC) and closed Riverdale Drive Landfill (Landfill) located in Jamestown, NC (collectively hereinafter referred to as the "Site"). The Remedial Action Pre-Construction Report for the physical treatment systems was submitted to North Carolina Department of Environment and Natural Resources (NCDENR)[1] on December 28, 2009. The report was subsequently approved by NCDENR on March 22, 2010. Although the Natural Treatment Systems Remedial Action Pre-Construction Report has not been formally approved by NCDENR, it was submitted on October 25, 2010, and the Parties have included comments on activities associated with that process as well. Collectively these reports are referred to herein as the "Pre-construction Report."

Remedial Construction Work Performed since the Last Progress Report

During the second quarter of 2015 the Parties completed all major construction activities at the Site as required by the Remedial Action Settlement Agreement Scope of Work. In addition, they implemented certain chemical and mechanical refinements to improve system performance determined necessary by system testing.

Following the completion of construction, the Parties began testing of the system components to determine long-term operating capabilities, and prepared and submit the Construction Completion Report to NCDENR. In addition, the Parties submitted rhizome soil sampled to RTI International (RTI) in Raleigh NC to attempt to isolate and identify native bacterial strains that degrade 1,4-Dioxane by using it as their sole source of carbon. This research identified four native bacteria strains that use 1,4-Dioxane in this manner. These strains have been isolated by RTI and are being grown on plates to develop a concentrated

[1] NCDENR is used in this report to refer to the North Carolina Department of Environment and Natural Resources, and collectively the associated Division of Waste Management, Solid Waste Section, Hazardous Waste Section, and the Inactive Hazardous Sites Branch, all of which are involved in the regulatory oversight of this remedial action.

inoculant that may be used to bioaugment the native soil to increase non-phytovolatilization based 1,4-Dioxane destruction in the landfill cap soils. This may be able to be used to improve 1,4-Dioxane destruction efficiency during periods of reduced tree uptake of the irrigation water.

Remedial Construction Work Remaining

At the end of the second quarter the system was being operated as needed to test the system and to gain operating experience. The system still continues to experience difficulties when processing leachate. To address this the Parties have retained the services of Hazen and Sawyer of Raleigh NC to conduct on-site testing during September to evaluate chemical and mechanical options to address this problem. After they complete their work they will make recommendations as to changes that could be made to the system (chemical and mechanical) to address the leachate treatment problem.

Leachate characteristics are significantly different those of the Southern Intermittent Stream (SIS) shallow groundwater and the groundwater that is pumped from deep groundwater well PWDR-1. This is assumed to be due to the high levels of CO_2 and biological matter present in the leachate. When incorporated into the process flow by including the leachate collection tank pumps (LCHT-1 through 5 and the NIS sump) and the landfill shallow groundwater wells (RWLFS wells) the amount and characteristics of the sludge generated in the process overwhelms the present capacity of the sludge handling equipment. This has caused system shutdowns and equipment fouling.

The landfill shallow groundwater appears to be a diluted form of the leachate. Although the system has been operated successfully with the RWLFS wells included, it requires continuous monitoring and excessive filter backwashing to sustain operations. When the leachate is added it overwhelms the system with the excess amount of sludge that is gelatinous and difficult to manage. Haven and Sawyer is a recognized expert in leachate and groundwater treatment, and has been tasked to set a mobile laboratory on site to test chemical and mechanical alternatives to address the problem and allow stable operation with leachate included.

Summary

The remedial system startup has fallen behind schedule based upon the original Scope of Work included in *Remedial Action Settlement Agreement* (RASA). However, significant progress has been made at this time, and the items required for startup are complete. The system has been shown to be capable of operating at a rate necessary to maintain very effective hydraulic control of the groundwater plumes. NCDENR has scheduled a Site inspection for early November 2015.

Please contact Mr. Gary D. Babb, P.G. (919-325-0696) or James C. LaRue (210-263-7580) if there are any questions or comments. Please direct correspondence related to this matter to:

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Seaboard Group II and City of High Point

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Raleigh, NC 27627.
Communications via electronic mail should be directed to gbabb@nc.rr.com and jlarue@swenv.com.

Respectfully,

Seaboard Group II and City of High Point

James C. LaRue
Seaboard Group II

Gary D. Babb, P.G.
City of High Point

Attachment - Project Schedule

cc Dave Nutt, Esq. - Seaboard Trustee
Steve Anastos - Seaboard Trustee
Jeffrey Moore - City of High Point Trustee
Randy Smith - Financial Trustee
Terry Hauk - City of High Point
Jackie Drummond – NCDENR Solid Waste

PROJECT SCHEDULE

2015

July – December	Continue to operate and refine the treatment system.
	Continue bioaugmentation study of 1,4-dioxane reducing bacteria native to site soils.
September	Perform on site laboratory testing of system chemistry to address problems treating leachate.
November	NCDENR site inspection.
December	Prepare for full scale operation.